Headquarters U.S. Air Force

Integrity - Service - Excellence

Appendix D15.1
Global Combat Support System – Air Force (GCSS-AF)
In-Process Review

for

Mr. John Landon

Lt Col Joe Besselman
System Program Director
ESC/NI-2

11 Mar 04

DSN 478-7507

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Outline

- Program Description
- Program Direction and Management
- Acquisition Process
- Acquisition Program Baseline
- Documentation and Strategies
- Capabilities and Integration Schedule
- Schedule
- Funding
- Summary

Program Description
Macro View of GCSS-AF

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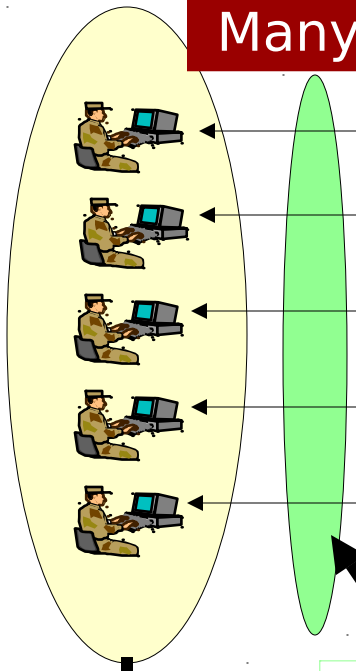
From
Many to Many--Stovepipes



Logistics Data Bases

Security Data Bases

Medical Data Bases

Manpower Data Bases

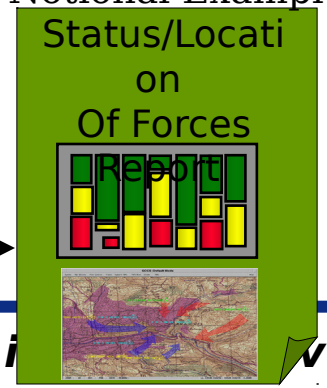
Personnel Data Bases

Various Methods Of Connection

Manual Combining Of Stovepipe Info

Days to Weeks To Generate

Notional Example



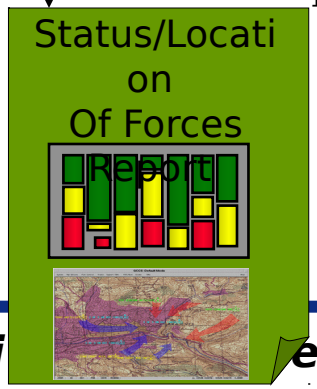
To
One to Many: Integrated

AF Porta

NIPRNET
SIPRNET

Near-Real/Real-Time Generation At Any Terminal Using Only a Web Browser

Notional Example

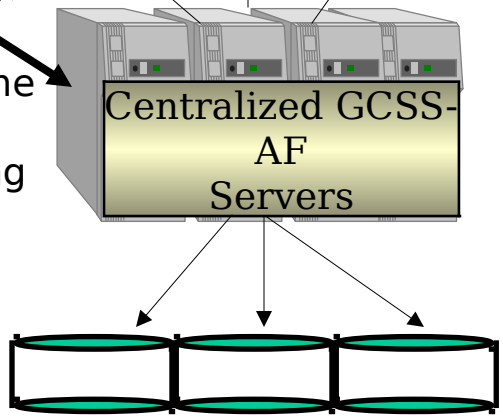


Log DBs

Fin DBs

Per DBs

Centralized GCSS-AF Servers



Enterprise Data Warehouse

Program Description

GCSS-AF Objectives and Key Principles

- Objective: Improve Operational Capabilities of combat support information systems
  - Responsive to warfighter's needs and easier to use
  - Integrate systems into a common combat support capability

- Objective: Reduce Costs by providing an architecture and infrastructure to develop, operate, train, and maintain systems
  - COTS-centered modernization
    - Enterprise Consolidation of Capital Purchases – Scale efficiencies: **"25 to 1 versus 8 to 1 across DoD"**
  - Common production platforms
  - Operations and Maintenance Labor & Expertise
  - Enterprise Engineering Enabling

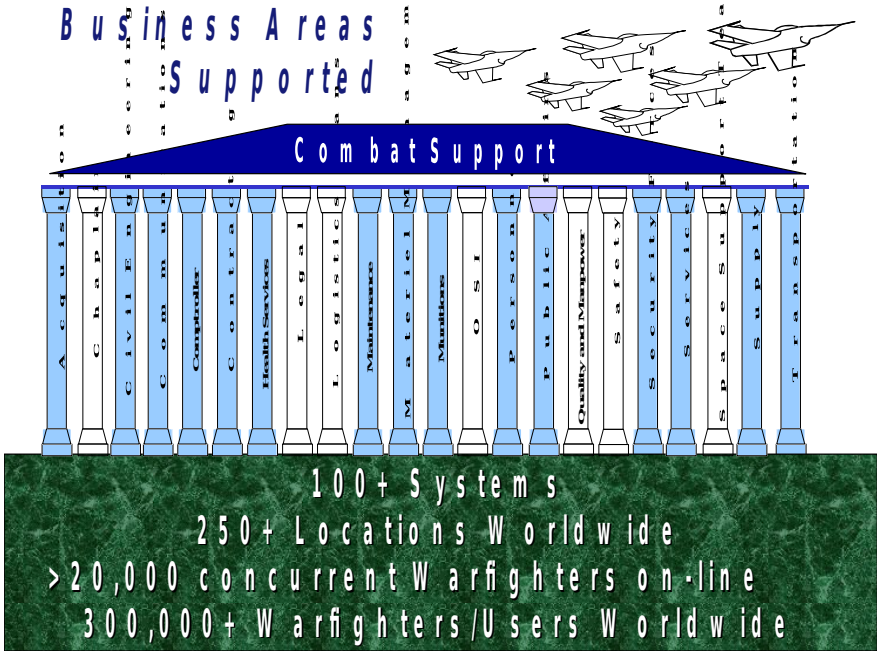
- Key Principles
  - Standards-based
  - COTS-based, shared infrastructure
  - Follow commercial IT practices
  - Data stewards share information via Publish and Subscribe mechanism

Program Description

Areas and Functional Users Supported

Functional Users

- All Air Force members: military, civilians, contractors
- MAJCOMs & Functional communities
- Combatant Commanders and staff
- J4 Staff
- Homeland Defense (Readiness Tab)



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Program Direction and Management Direction

- **Statement of Operational Need (SON) HQ USAF 006-89 Dated: 20 December 1989**
- **GCSS-AF Capstone Requirements Document (CRD)(USAF 006-89) Dated: 12 July 1996**
- **GCSS JMNS Dated: 10 September 1997**
- **GCSS-AF Requirements Integration Tiger Team (GRITT) Report Dated: 31 Aug 1999**
- **ORD JROC Approved: 23 Dec 01**

  CSAF signed: 8 Apr 03
- **Member of GCSS Family of Systems**
  - **AF component of Joint asset visibility**
- **Principle Staff Assistant/Domain Owner**
  - **DUSD LM&R/ Logistics Domain & Focused Logistics**

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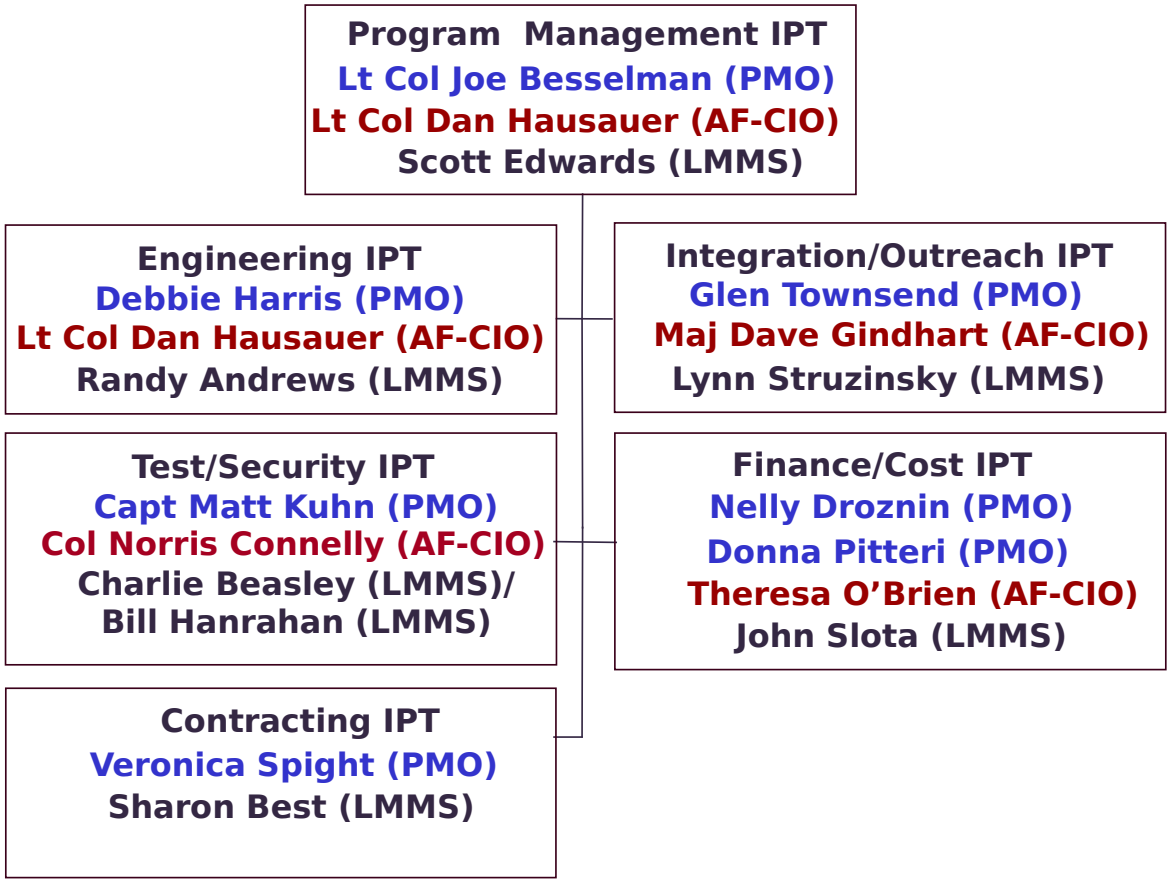
Program Direction and Management

Program IPT Structure



PMO

Functional/User

Contractor

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Program Direction and Management

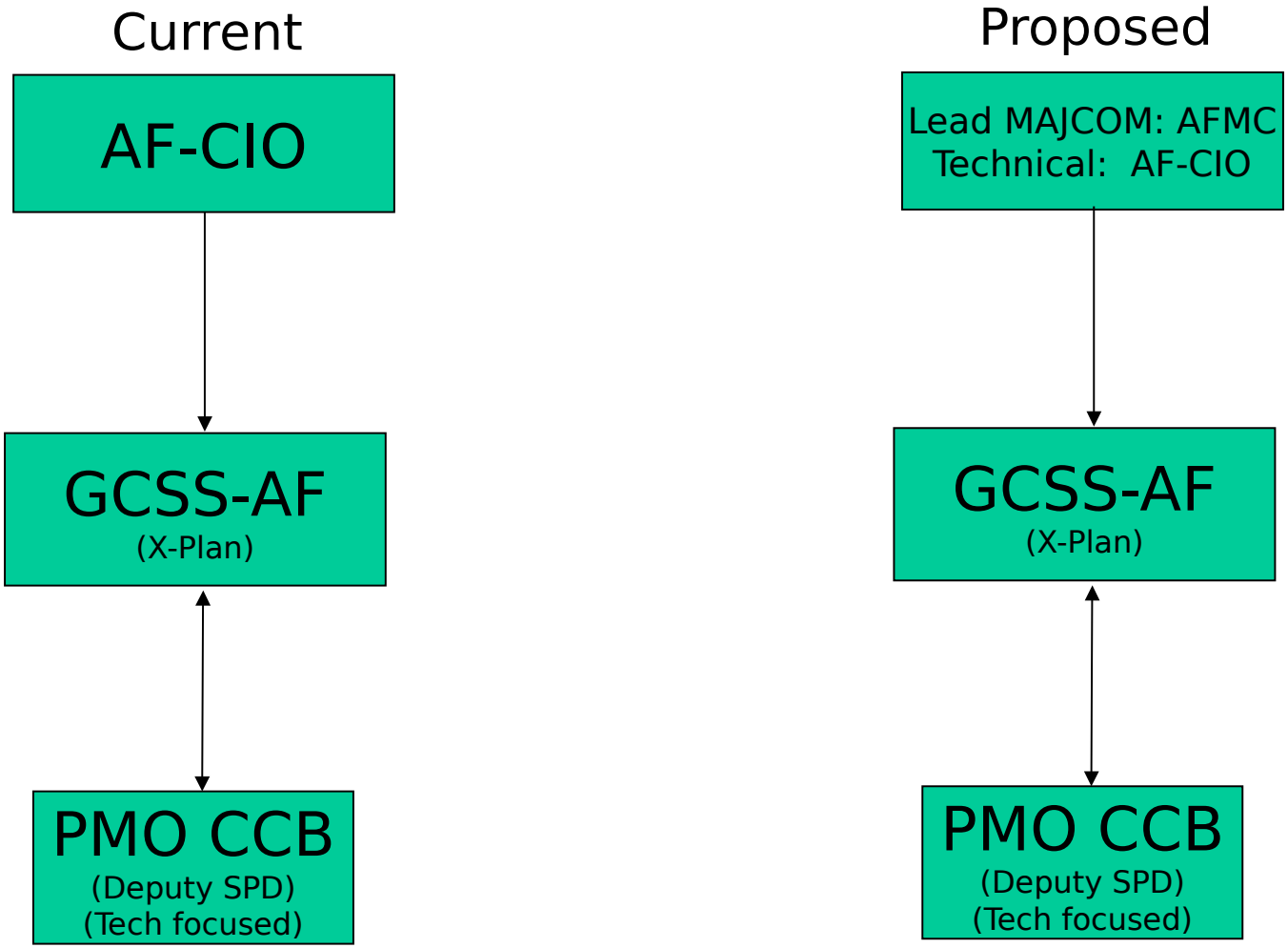
Acquisition Qualifications

- System Program Director, Lt Col Joe Besselman
  - DAWIA Level 3
    - Program Management
  - Defense Systems Management College (DSMC)
  - 1999 OSD & DSMC Acquisition Research Award (Acker)
  - Specialty Codes:
    - Duty: Program Manager
    - Primary: Computer Systems Engineer
  - Education:
    - BS, MS; Louisiana State University
    - PhD; Carnegie Mellon University

- Deputy System Program Director, Mr. Joe Farinello
  - DAWIA Level 3
    - Program Management
  - DSMC
  - 2002 Senior Civilian of the Year, Northeast Region, United States
  - Specialty Codes:
    - Program Manager, Acquisition
  - Education:
    - BS; Northeastern University

Program Direction and Management

Requirements Implementation Process



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Acquisition Process

Acquisition Strategy

- **GCSS-AF**
  - **Program is designated an ACAT IAC**
  - **Multiple cost plus award fee task orders were issued in support Air Force Combat Support Enterprise Services**
    - **The contractor incentive is for cost, schedule, performance, work management and problem-solving**
  - **Prime Contractor is Lockheed Martin - Owego**
  - **The GCSS-AF contract was a competitively awarded vehicle under FAR Part 15. There will be a recompetition of the contract in FY06**
  - **EADR scheduled for 31 Mar 04**
  - **Initial Operational Capability Apr 04**
  - **Full Operational Capability FY07**

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Acquisition Process

Acquisition Reporting

- **Portals accessible to OSD Oversight Staff:**
  - **Air Force Portal**
    - **https://my.af.mil/**
  - **SMART is found under the "Workspace" Tab**
    - **Role-based access controlled**
  - **Capt Kuhn, DSN 478-1425, can provide access to GCSS-AF information via SMART**
- **Capital Investment Report (CIR) submitted for GCSS-AF**
  - **Scored "4" from AF and "3" from OSD in Sep 03**
  - **Update submitted Feb 04 … goal is a "5"**
- **CCA Compliance**
  - **Interim approval by CIO pending approval of our EA scheduled for 22 Mar**

Acquisition Program Baseline

- APB to be approved at the EADR (31 Mar 04)
  - Estimate contingent upon AFCAIG review (22 Mar 04)
  - Approving Authority: Deputy AFPEO/C2&CS
  - Includes 1996-2017

- Cost (BY02)

	Objective	Threshold	PM Estimate
Total RDT&E	$274.1M	$315.2M	$274.1M
Total O&M	$782.6M	$900.0M	$782.6M
Total Procurement	$203.0M	$233.4M	$203.0M

- Schedule

	Objective	Threshold	PM Estimate
Development Contract Award	May 96	Nov 96	Dec 96
IOC	Apr 04	Jul 04	Apr 04
OT&E	Jun 07	Aug 07	Jun 07
FOC	Sep 07	Jan 08	Sep 07

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Acquisition Program Baseline

~~Performance Parameters~~

- **Availability**
  - **ORD Requirements:**
    - **Threshold: 98% cumulative**
    - **Objective: 99.99% cumulative**
  - **Actual: 99.7% cumulative**
- **Response times**
  - **ORD Requirements:**
    - **Threshold: 5 seconds**
    - **Objective: 3 seconds**
  - **Actual: 80%+ 3 seconds or less**

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Documentation and Strategies Documentation

Document	Approved Date	Update Planned
Joint Mission Need Statement (JMNS)	10-Sep-1997	N/A
Operation Requirements Document (ORD)	8-Apr-2003	N/A
Business Process Reengineering (BPR)	None	N/A
Analysis of Alternatives (AoA)	24-Jan-2002	N/A
Cost Analysis Requirements Description	28-Sep-2003	N/A
Economic Analysis (EA)	22-Mar-2004	12-18 Months
Component Cost Analysis	22-Mar-2004	12-18 Months
Life-Cycle Cost Estimate	22-Mar-2004	12-18 Months
Acquisition Strategy	25-Sep-2003	31-Mar-04
Test and Evaluation Master Plan (TEMP)	DRAFT	**Planned Aug 04**
SSAA	7-Jul-2003	Jul-04
C4 Integrated Support Plan (C4ISP)	24-Nov-2003	Nov-04
Information Assurance (IA) Strategy	24-Nov-2003	Nov-04

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Documentation and Strategies

C4ISP Status

- C4ISP approved 24 Nov 03
  - Worked with AFCA to minimize cycle time
    - Reduced review time by 25%
  - Approved for GCSS-AF IF/AFP version 4.2
- C4ISP Update
  - Defining what changes need to be made
    - OV,SV,TVs need updated terms
    - Update views to reflect current architecture
- AF Framework Vision
  - Applications migrating to GCSS-AF and not building their own security will be able to utilize GCSS-AF C4ISP and other documentation not required by law

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Documentation and Strategies

Information Assurance (IA) Strategy

- Security Working Group (GCSS-AF, AFKS, CIO (DAA), AFIWC)
- Brought in AFIWC to provide assessments of capabilities
  - Assessed general GCSS-AF posture
  - Assessed AFIM tool (Bantu)
    - Worked extensively with AFIWC to clear issued and validate fixes
- Completed DITSCAP compliant SSAA for GCSS-AF ver 4.2
- Security provided IAW DoD and AF Guidance
- Continual Process
  - Security team at SSG reviews every package for security compliance

Documentation and Strategies

Software Acquisition Process Improvement

- Lockheed Martin GCSS-AF Team
  - First commercial organization in the WORLD evaluated CMMI Level 5 – External Assessment in FY03
  - GCSS-AF was one of 3 programs from Owego, NY site to comprise the Level 5 rating
- GCSS-AF PMO
  - Operates an untraditional, small PMO to exploit contractor rating and industry expertise
  - Several PMO Initiatives on engineering rigor
    - Courses on “round trips” and “file sizes” and “key transactions”
    - Extensive training for the migrating SPOs
    - Use of standard products comprising standard architecture vice every SPO doing their own thing
  - PMO has extensive metrics effort to drive the program
  - OSD RIT evaluation identified 13 “Best Practices”

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Documentation and Strategies

Capability Strategy

- Migrate customer-identified Combat Support systems to common hardware and software architecture and products riding in DISA Megacenters
- Migrate web-based applications under common security layer and make accessible from the AF Portal
- Migrate key Combat Support data

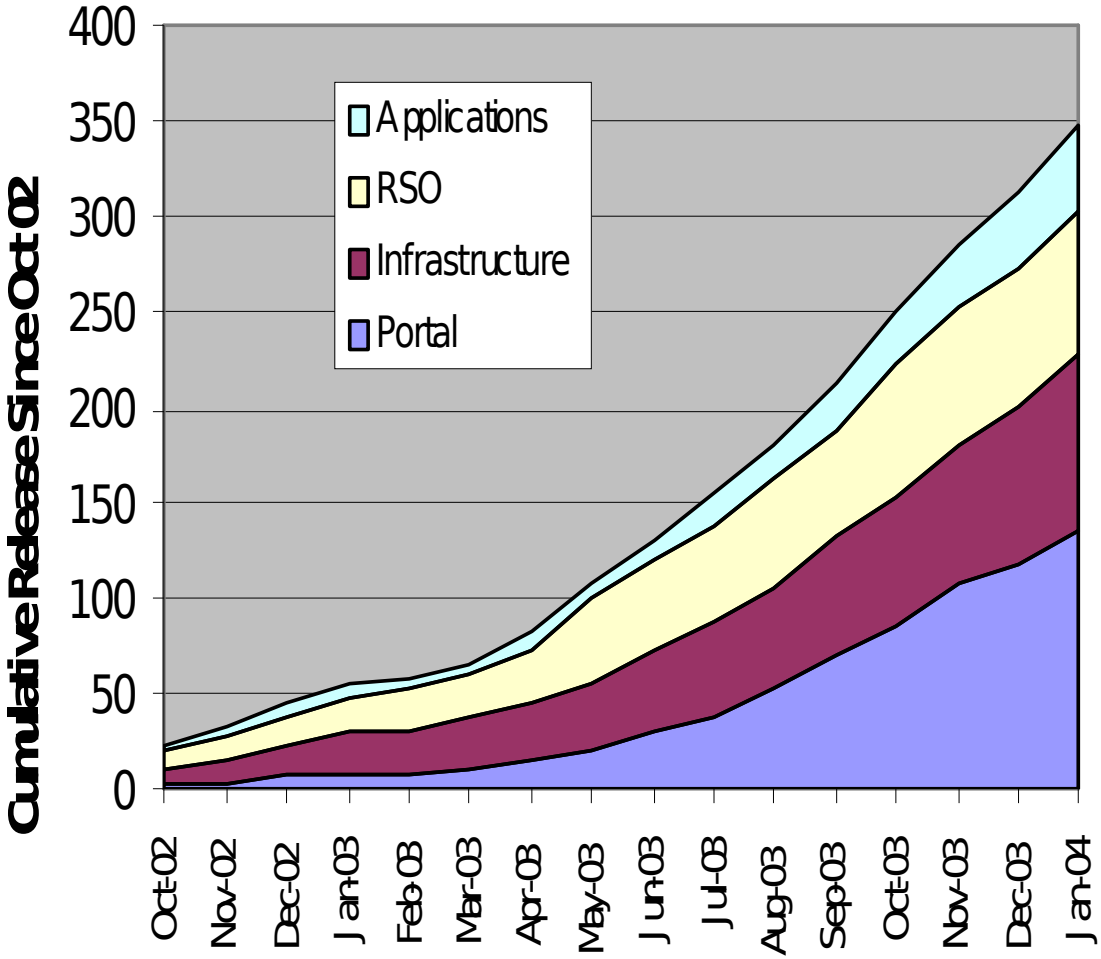
Capabilities and Integration Schedule

Capabilities

- **Availability: 99.7 percent – about 1 hour of scheduled and unscheduled downtime every 10.5 days**
- **End-to-end Performance:**
  - **> 90 percent of transactions in less than 5 secs**
  - **> 80 percent of transactions in less than 3 secs**
  - **> 70 percent of application transactions in less than 2 secs**
- **Users: Average 120K logins/week, approx 40% unique**
- **Content Demand: 600K to > 1M pages per day**
- **Native Applications: > 20**
- **Single Sign On Applications: > 60**
- **Infrastructure: PKI, End-to-End, EAI, HW Compression, .COM, .NET, Role-based Access**

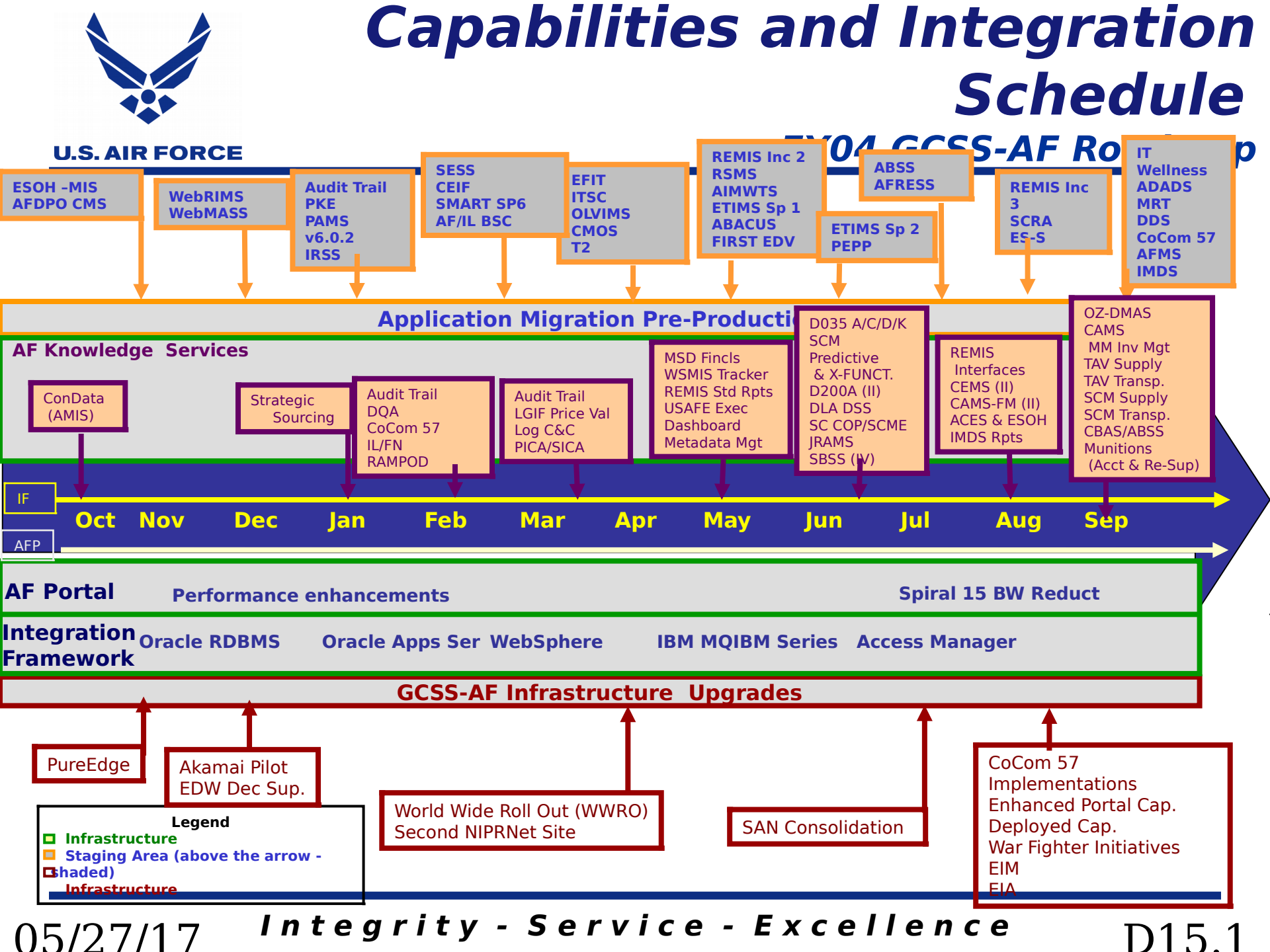
Capabilities and Integration Schedule

Cumulative Release History Since Oct 02



- **Applications = 46**
  - **Capability**
  - **Maintenance**
- **RSO = 73**
  - **Functionality**
  - **App Configurations**
- **IF = 92**
  - **Enhancements**
  - **Upgrades**
  - **Patches**
- **Portal = 137**
  - **Capability**
  - **Maintenance**

Capabilities and Integration Schedule



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Capabilities and Integration Schedule

GCSS-AF World Wide Roll-out

Event/Delivery	Previous Date	Current	Key Deliverables
Self-Registration			
✓ WWRO Self-Registration Update	27 Feb 04	02 Mar 04	complete
✓ Updated FFP [2] Complete	28 Feb 04	02 Mar 04	
Portal [1]			
✓ AFP v4.4.98 – Hot Profile Update	27 Feb 04	28 Feb 04	complete
AFP v5.0.1 – COI Enhancements	02 Mar 04	04 Mar 04 [1]	
AFP v5.0.2 – Desktop Integration	27 Feb 04	12 Mar 04	
AFP v5.0.7 – Self-Reg/Portal Profile UI	23 Apr 04	26 Mar 04	
AFP v5.0.8 – I/A Usability	23 Apr 04	22 Apr 04	
AFP v5.1 – Workflow/Content Deployment	26 Mar 04	02 Apr 04	
AFP 5.4 – Search Expanded Index/Taxonomy	02 Apr 04	02 Apr 04	
IF Upgrades			
UDWS v1.2	23 Mar 04	23 Mar 04	
Operations & Support			
System Capacity Validation	02 Apr 04	02 Apr 04	
System Mgt & Monitoring Validation	27 Feb 04	31 Mar 04	
Tiered Admin Training for MAICOMs	05 Mar 04	11 Mar 04	

1 Self Registration update effort taking priority for production roll-out over AFP release 5.0.1
2 Tutorial and Privacy Links on FFP are not accessible from .com

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Funding

Future Years Defense Plan (TY$M)

GCSS Investment Program Funding & Quantities											
($ in Millions / Then Year)	Prior	FY03	FY04	FY05	FY06	FY07	FY08	FY09	FY04-09	To Comp	Prog Total
RDT&E											
Prior $ (PB 04)	30	20	17	17	18	16	16	16	101	9	159
Current $ (PB 05 Proposal)	30	28	17	19	21	20	20	20	117	9	183
Delta $ (Current - Prior)	(0)	8	(0)	1	3	4	4	4	16	0	24
Required $	50	26	28	22	25	24	9	7	114	9	198
Delta $ (Current - Required)	(19)	2	(10)	(3)	(4)	(4)	11	13	3	0	(15)
PROCUREMENT											
Prior $ (PB 04)	3	10	12	12	21	24	25	25	119	120	251
Current $ (PB 05 Proposal)	4	10	11	8	11	10	11	9	60	120	193
Delta $ (Current - Prior)	0	(0)	(0)	(4)	(11)	(13)	(14)	(16)	(58)	0	(58)
Required $	4	9	14	16	21	19	14	11	95	120	227
Delta $ (Current - Required)	0	0	(2)	(8)	(11)	(8)	(3)	(2)	(34)	0	(34)
O&M											
Prior $ (PB 04)	0	12	12	16	18	18	18	18	99	565	676
Current $ (PB 05 Proposal)	0	12	12	16	22	25	26	29	131	565	708
Delta $ (Current - Prior)	0	(0)	0	(0)	4	8	8	11	31	0	31
Required $			37	47	53	59	63	64	324	565	888
Delta $ (Current - Required)	0	12	(25)	(31)	(31)	(34)	(37)	(36)	(193)	0	(181)
TOTAL											
Prior $ (PB 04)	34	42	41	46	56	57	58	59	318	693	1087
Current $ (PB 05 Proposal)	34	50	41	43	53	55	57	58	308	693	1084
Delta $ (Current - Prior)	0	8	(0)	(3)	(3)	(2)	(1)	(1)	(10)	0	(2)
Required $	53	35	78	85	99	102	86	83	532	693	1314
Delta $ (Current - Required)	(19)	15	(37)	(42)	(46)	(47)	(29)	(24)	(225)	0	(229)
QUANTITIES											
Prior (PB 04)											
Current (PB 05 Proposal)											
Delta Qty (Current - Prior)											
Required Qty											
Delta Qty (Current - Required)											

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Funding
Funding Strategy

CORE SERVICES

- Common Services
  - Data Warehouse
  - Security
  - Messaging
- Common HW
- Common Infrastructure
- Information Framework
- Certification Foundation
- Enterprise Tuning/Load Balance
- Scaleable computing capability
- Migration Training
- Deployment support
- Mission Capability Enhancements
- Backups
- Level 1 Help Desk

USER SERVICES

- Single User Interface
- Single Sign-on
- Role-based access
- 24/7 DISA Computing
- Help Desk
- SW License Maintenance
- Infrastructure SW Maintenance
- Web Content Migration

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Summary

- **GCSS-AF is a standards based, COTS-enabled system for improving the operational capabilities of AF combat support IT assets and reducing the overall IT cost**
- **GCSS-AF has achieved great successes and made significant progress while under the RIT pilot, and can continue this performance into the future**
  - **Would not have been successful without the help of John Laychus, Len Sadauskas, and Jim Clausen**
- **Recommend that GCSS-AF retain the ACAT IAC designation**